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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,147	01/24/2005	Michel Oswald Gorgerin	01435.0203	9127
22852 7590 09/06/2007 FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413				
			EXAMINER JACOBSON, MICHELE LYNN	
			ART UNIT 1709	PAPER NUMBER
			MAIL DATE 09/06/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/522,147

Applicant(s)

GORGERIN, MICHEL OSWALD

Examiner

Michele Jacobson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 1/24/05.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5 and 7-17 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Coutant et al. U.S. Patent No. 5,380,803 (hereafter referred to as Coutant).

3. Coutant teaches a polyethylene blend with improved physical and optical properties that can be used to make bottles. (Col. 2, lines 6, 22, 26) The resin recited is multimodal and produced by blending between 10-80 % weight of a low molecular weight polymer with 20-90 % weight of a high molecular weight copolymer. It is recited that "it is preferred, if the composition of matter comprising the ethylene homopolymer resin and the ethylene copolymer resin, is essentially free of any other ethylene polymers." (Col. 6, lines 31-35) The low molecular weight component is recited to be an ethylene homopolymer and the high molecular weight component a copolymer of ethylene and from 0.01-15 weight percent 1-butene. (Col. 5, lines 24 and 32) It is recited that "it is preferred, if the composition of matter comprising the ethylene homopolymer resin and the ethylene copolymer resin, is essentially free of any other

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ethylene polymers." (Col. 6, lines 31-35) Other limitations set forth by Coutant can be found in the following table.

4. The limitations of claims 1, 3-5, and 8-14 are addressed in the following table.

The ranges of Coutant encompass or are sufficiently specific to anticipate the limitations set forth in all of these claims. (See MPEP 2103.03)

	Density (g/cm <sup>3</sup> )	MI <sub>2</sub>	Mw/Mn	MI <sub>2</sub> (A)/MI <sub>2</sub>	% Ethylene Homopolymer (A)	% Copolymer (B)
Applicant Polyethylene	0.950-0.962	1-3 g/10 min	5-9	5-500	30-40 % weight	35-80 % weight
Coutant Polyethylene	0.945-0.965	0.1-5 g/10 min	3-15	5-250 and above	10-80 % weight	20-90 % weight
Applicant Ethylene Homopolymer (A)	> 0.965	> or = 10 g/10 min				
Coutant Ethylene Homopolymer	0.96-0.98	> or = 25 g/10 min				
Applicant Copolymer (B)		0.08-0.8 g/10 min				
Coutant Copolymer		> 0.05 g/10 min				

5. Claims 2 and 17 are anticipated by Coutant since Coutant recites a polymer blend with all of the characteristics recited by applicant the bottle produced from the Coutant resin would inherently display the properties recited in claim 2.

6. Regarding claim 7: Coutant recites that the bimodal polymer resin produced not contain any other ethylene polymer. Although Coutant recites that other components may be optionally added to the polymer, they are not required. The examiner interprets

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these factors to mean that in at least one embodiment the resin of Coutant used to make a container is solely composed of multimodal polyethylene.

7. Coutant recites an ethylene copolymer derived from ethylene and 1-butene as recited in claims 1 and 15.

8. Regarding claim 16: The recitation in claim 16 that "the multimodal ethylene polymer is obtained by polymerization in at least two reactors connected in series" is a product by process claim and therefore immaterial to the product made. Since Coutant clearly anticipates the polyethylene of claim 1, it also anticipates claim 16.

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coutant et al. U.S. Patent No. 5,380,803 as applied to claims 1-5 and 7-17 above.

11. It would have been obvious to one of ordinary skill in the art to have optimized the parameters set forth in Coutant in order to produce the invention as claimed in claims 1-18.

12. MPEP 2144.05 recites "In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists."

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Coutant either encompasses or overlaps the ranges set forth by applicant, therefore rendering applicant's invention as claimed in claims 1-5 and 7-17 obvious to one of ordinary skill in the art.

13. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have produced a bottle of less than 2 L volume as claimed in claim 6 since bottles of 2 L volume and below are universally known and the most desirable size for drink packaging.

14. Although the limitation of 2 reactors connected in series as set forth in claim 16 is a product by process limitation, nonetheless, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used whatever suitable polymerization process was necessary to produce the polymer, including utilizing 2 reactors.

15. Sterilizing the bottle as claimed in claim 18 would have been obvious to one of ordinary skill in the art at the time the invention was made since all bottles need to be sterilized before they can be filled with beverages for consumers.

16. Coutant does not specifically recite a bottle in an example with the same parameters as applicant's. However, the resistance to slow cracking recited in the examples of Coutant are all at least 60 hrs, indicating a motivation to have increased resistance to slow cracking. Coutant does not recite Vicat points for the polymers produced, but examiner believes this property would be inherent to the synthesis parameters set forth in claim 1. It would have been obvious to combine polymers A and

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B within the parameters set forth in Coutant to produce a bottle with the same characteristics as claimed in claim 2.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michele Jacobson whose telephone number is (571) 272-8905. The examiner can normally be reached on Monday-Friday 7:30 AM-5 PM EST (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Lawrence Tarazano can be reached on (571) 272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**D. LAWRENCE TARAZANO**  
**PRIMARY EXAMINER**

Michele L. Jacobson  
Examiner  
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